

Chemistry assignment

Qant

1. Name the functional groups present in each of the following molecules

- i) $\text{CH}_2 = \text{C}(\text{OH})\text{HCHO}$ - COOH
 ii) $\text{C}_6\text{H}_5\text{CH}(\text{NH}_2)\text{COCH}_3$ - NH_2
 iii) $\text{CH}_3\text{C} \equiv \text{CHCH}(\text{OH})\text{CHO}$ - CHO

2. A 0.856 g $\alpha = +1.0^\circ$

$$T = 20^\circ\text{C}$$

$$c = 0.0856 \text{ g cm}^{-3}$$

$$l = 1.0 \text{ dm}$$

$$\text{specific rotation} = \alpha_l = \frac{\alpha}{c \cdot l}$$

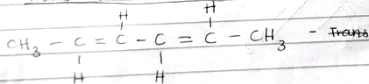
$$\alpha_l = \frac{1.0^\circ}{0.0856 \text{ g cm}^{-3} \times 1.0 \text{ dm}}$$

$$\alpha_l = 11.682^\circ \text{ g}^{-1} \text{ cm}^3 \text{ dm}^{-1}$$

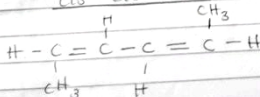
3. Possible geometric structures for each of the following

i) Hexa-2,4-diene

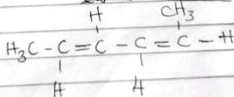
Trans-Trans isomer



cis-cis isomer



cis-trans isomer



ii) H 2,3-dimethylbut-2-ene

